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SCIENTIFIC MANAGEMENT APPLIED TO COMMERCIAL ENTERPRISES

Of late great attention has been paid to production. In manufacturing plants under scientific management nearly every useless motion has been eliminated, the workmen have been benefited, and product and profits have been increased. But in the distributing of the product—the greatest problem in business, and the test of a successful business organization—the rule of thumb, so carefully eliminated from production, obtains throughout the commercial world.

We live in a market-place. The people in it are buyers and sellers and there is great competition. It is easier to make things than to sell them. It is easier to get men to make things than it is to get men to sell them. Selling things consists in dealing with people, and it is people whom we must influence if our business is to be successful. These people are usually outside of the factory or salesroom, and therefore external efficiency is of the utmost importance to a business.

Many men pay so much attention to the internal efficiency of their businesses that they neglect external efficiency. "Your lathes may be rotating at precisely the right speed and yet turning out exactly the wrong product. What does it matter how efficiently you do a thing if it is not the efficient thing to do?"¹ In order that the lathes may not only rotate at precisely the right speed, but also turn out precisely the right product, both production and distribution must be co-ordinated. We know that production has been vastly benefited by scientific management. Why should not distribution likewise benefit? Does scientific management end when goods are loaded into a freight car? Is there no hope that the great principles may be applied throughout the entire business organization—to distribution as well as to production?

In the belief that goods made under scientific management can and should be sold by scientific management, I venture to offer

¹ Roger W. Babson in the *New York Times*, October 6, 1912.

my views on the subject, fully realizing that mine may be a lone cry, but in the hope that whatever truth there is in the appeal, if any, may survive.

So much has been said about scientific management that a restatement hardly seems necessary; and yet I venture to make it because I believe that the application of scientific management to commercial enterprises is new, and because an authoritative account of what scientific management is not and what it is, appears to me to place us in a position to proceed with our subject.

It will be generally agreed, I think, that Dr. Frederick W. Taylor is an authority upon the subject. From his testimony before a congressional investigation held in 1912 I quote as follows:

Scientific management is not any efficiency device, not a device of any kind for securing efficiency; nor is it a bunch or group of efficiency devices. It is not a new system of figuring costs; it is not a new scheme for paying men; it is not a piece-work system; it is not a bonus system; it is not a premium system; it is no scheme for paying men; it is not holding a stop-watch on a man and writing things down about him; it is not time study; it is not motion study nor an analysis of the movements of men. . . . It is not divided foremanship nor functional foremanship; it is not any of the devices which the average man calls to mind when scientific management is spoken of. . . . I am not sneering at cost-keeping systems, at time-study, at functional foremanship, nor at any new and improved scheme of paying men, nor at any efficiency devices, if they are really devices that make for efficiency. I believe in them; but what I am emphasizing is that these devices in whole or in part are not scientific management; they are useful adjuncts to scientific management, so are they also useful adjuncts to other systems of management.

Now in its essence, scientific management involves a complete mental revolution on the part of the working-man engaged in any particular establishment or industry—a complete mental revolution on the part of these men as to their duties toward their work, toward their fellow-men, and toward their employers. And it involves an equally complete mental revolution on the part of those on the management's side—the foreman, the superintendent, the owner of the business, the board of directors—a complete mental revolution on their part as to their duties toward their fellow-workers in the management, toward their workmen, and toward all their daily problems. And without this complete mental revolution on both sides scientific management does not exist.

The great mental revolution that takes place in the mental attitude of the two parties under scientific management is that both sides take their eyes off the division of the surplus as the all-important matter, and together turn

their attention toward increasing the size of the surplus until this surplus becomes so large that it is unnecessary to quarrel over how it shall be divided. . . .

The substitution of the new outlook—this new viewpoint—is of the very essence of scientific management, and scientific management exists nowhere until after this has become the central idea of both sides. . . .

The present condition of things in distribution is very nearly the same as in production when not under scientific management. The salesman's job is his to execute very much as he thinks best. Salesmanship is supposed to be a gift from heaven, and all that is now considered necessary is to have some knowledge of the product, and experience in handling men. Oftentimes salesmen begin business life as office boys and work up. Others, more fortunate, begin as junior salesmen. Comparatively few have had educational training beyond the high school. Many commence selling without any training in salesmanship. Whatever merit they acquire is gained in the "University of Hard Knocks." Some of the larger concerns maintain schools of salesmanship and there are independent schools, but most of these, by force of conditions, are devoted chiefly to imparting quickly the "knack of selling." If there be such a science as the science of salesmanship, it is not yet developed. Small concerns cannot afford the expense of scientifically trained salesmen and the large concerns recruit their forces chiefly from successful, self-trained salesmen coming from outside. In general, therefore, things are pretty much as they have been.

And yet the present conditions in the commercial world differ somewhat from the conditions in the industrial world. There has been more co-operation between management and salesman than between management and workman, and salesmen have shared in the profits more generally than workmen. There has not been constant warfare. The mental attitude of both management and salesman has on the whole been different from the mental attitude of management toward workmen and *vice versa* in the industrial world. But while these differences have been somewhat less, the principle upon which merchandise is now distributed is the old principle of the rule of thumb with slight modifications due to modern devices. However, the basic principle of substituting exact knowledge for guesswork is not widely recognized.

The question now arises: Is there a science of salesmanship? Science has been defined by President Maclaurin of the Massachusetts Institute of Technology as "the classifying and organizing of knowledge of any kind." Assuming that we may accept that definition as authoritative, the science of selling consists in classifying exact knowledge of market conditions by which we can create demand and predict the future, getting the product at the lowest cost, and delivering the product to the market at a profit, that is, organizing exact knowledge into a commercial enterprise.

How many producers have collected and organized all the knowledge of salesmanship in their businesses and reduced the knowledge so far as possible to laws and rules? How many have made a scientific selection of salesmen? How many have brought together salesmen scientifically selected and a product scientifically selected? How many have almost equally divided with the salesmen the responsibility for selling their product?

Those who admit that, so far as product and the selection of salesmen are concerned, the principles of science may apply, still frequently oppose the application of scientific management to distribution upon the ground that the disposal of merchandise depends to a large extent upon the human elements involved and that these cannot be reduced to laws and rules. To a very large extent the salesmen themselves are responsible for the fixity of this idea. Usually they seize upon every opportunity to impress this notion upon the management. They regard it as their stock in trade. Their customers are theirs because they have known them, frequently for years, and because of the skill or knack with which they deal with them. A case of this sort of proprietorship on the part of a salesman recently came to my attention. The entire private data of two of a company's most important contracts, constituting a large part of the business, were carried in a memorandum book in the pocket of a salesman and were to be found nowhere else. Often intimate relations are established between salesman and customer and this is supposed to settle matters and Jones the salesman is regarded as the only one who can deal with Smith the customer.

Jones sells the merchandise. Every year he makes two business trips which take him away from headquarters and out of close touch with his employers for three months at a time. I know of one salesman whose regular trip takes eleven months. Like the workman in the factory, he is left pretty much to himself. The salesman's customers are his to deal with as he likes, provided he gets proper prices and what seem to be reasonable orders. But who in the management really knows whether or not the salesman gets adequate orders? As in the case of the factory, the management contents itself with a general oversight. Many salesmen rarely hear from their managers except upon routine matters or complaints, or when new lines are opened. Of constructive help by the management in planning in advance precisely the kind of work to be done by the salesman at a given point and preparing the way for him—of such help none is given. The point of all this is that the management does not personally take part in the responsibility of soliciting orders.

In many of its elements, therefore, it seems to me that the condition in which we find commercial enterprises today is almost exactly the same as that in which we find factories before they are brought under scientific management. Most of us know that when experts are called in to reorganize a business, their findings usually show among other items: high cost of production due to lack of knowledge of actual costs, waste of material due to imperfect organization, poor financing, and inefficient sales force. Plans for decreasing or eliminating the troubles on the production side are easily presented, but the matter of inefficiency on the sales side is frequently disposed of by recommending a change in sales managers. "If Sales Manager Jones cannot sell the goods, get someone else who can." That is the attitude. In this you will not find a recognition of the principle that the management ought to share directly in selling. The management supplies the goods, but Jones must sell them. How to secure the maximum of efficiency in selling is not planned in detail because of the general belief that the personal equation is not subject to laws and rules which can be laid down as the result of investigation, selection, bringing together both sides of the equation, and attempting to solve the

problem by an almost equal division of the work between the management and the salesman.

A large part of the science of selling lies in getting the product. This we see clearly in the department stores where the chief effort is centered in the buying. The buyers are the heads of departments who purchase for their departments. They constitute the backbone of the business. Their work is chiefly that of estimating the future. In all commercial enterprises, estimating the future accurately is a very considerable part of selling. To estimate the future as accurately as possible, we must estimate accurately both product and prices. How can such an estimate be made unless exact knowledge be obtained? Unless we have gathered all the knowledge of the market for our product, selected the product as a result of our accurate knowledge of it, brought together the scientifically estimated product and the scientifically determined demand, and shared personally in the responsibility of bringing this demand and supply together—unless all this has been done in the past, how is it possible to estimate the future with a reasonable degree of accuracy?

In answering this question by the help of scientific management, let us ascertain what would be the steps to take.

The first step is to gather in all the vast amount of knowledge of salesmanship and of the skill acquired in many years of experience, which has been in the past only in the heads of the salesmen. The work of gathering this knowledge of salesmanship, of recording it, of tabulating it, and finally of reducing it, as far as possible, to laws and rules, is assumed by the scientific managers.

In this work, specialists in the science of salesmanship are employed. These are men with rigorous training in general science followed by training in salesmanship. A sales planning-room—not unlike the planning-room of the factory—is established and the work of gathering exact knowledge of the business is carried on in a similar way, except that now we are dealing oftentimes with less tangible things—human beings. These must be brought as closely as possible under control by careful planning. In the sales planning-room, a map of a section of country is treated very much like a drawing for work to be executed in the factory, but

in this case the study is of people and of conditions as well as of material.

An important part of our work deals with the scientific study of the market and with such adaptation of our merchandise to our market that it will be possible to reach the maximum of consumption. There is a point beyond which it is impossible for a market to advance, and our scientific manager knows this and governs his course accordingly. In one section of the country the ability to purchase may be rising, while in another it may be falling, and these sections may not be widely separated. Much money has been lost in extending credit in localities which have not sufficient purchasing power. Much money has been lost by advertising in localities in which the purchasing power was falling. It is the business of the sales planning-room to know when a period of depression is approaching a given locality and when a boom has reached its highest point.

And the sales planning-room studies not only the salesmen and dealers, but also the consumers. Science work of this kind is carried on with a view to teaching the dealers how to increase consumption. This might be called functional salesmanship. It is undertaken by the regular staff traveler as far as practicable, but when not practicable a special functional salesman is sent out by the sales planning-room to develop the whole subject of sales in the section, that is, to create the demand and set in motion the machinery for supplying it properly.

The mental attitude of the dealer is favorable to our purposes. By experience he has found that we are his friends and that we know how to help him to sell more than he ever sold before and consequently to make more money than he ever made before.

I am familiar with a business in which functional salesmanship is carried on harmoniously and with great success. When a salesman finds difficulty that he cannot overcome, he notifies his company at once and a functional salesman is sent to help him. The functional salesman is a man of greater experience and ability—one advanced from the traveling staff. In some cases I have known of two functional salesmen working with the regular salesman on one order. Each had his special place in the scheme and

all worked with great enthusiasm. Under scientific management the regular salesman welcomes the assistance of the functional salesman because it is the first purpose of both to increase the sales, and the personal success of one does not interfere with the personal success of the other.

The second step is made by the scientific selection of salesmen and their progressive development. In order to do this the management must deliberately study the character, the nature, and the performance of each salesman to learn his limitations and, what is more important, his possibilities for development. This done, the scientific manager deliberately proceeds systematically to teach the salesman and make it possible for him to advance until he can do the most profitable class of selling for which his natural ability fits him. The practical advantage of this lies in raising the general average of sales per salesman. Every sales manager will testify that under similar conditions of territory, product, management, training, and experience salesmen vary greatly in their total sales. They vary sometimes from \$10,000 to \$100,000. If scientific selection should replace the \$10,000 salesmen with \$100,000 salesmen, it is easy to calculate the enormous increase in net profits.

I once asked a remarkably successful sales manager how long it took him to determine whether or not a salesman was successful. He replied that in his business it took a year, that there were many failures, and that much time and money was wasted. He said further that the men whom he expected to succeed frequently failed and that the men whom he expected to fail often succeeded. As he expressed it, "You never can tell."

Without scientific selection you never can tell, but with the standards established by scientific management you can predict successful salesmen with a high percentage of accuracy and thus prevent this great waste in time and money. The cost of getting together twenty-five efficient salesmen by the present hit-or-miss method might readily amount to \$100,000, to say nothing of the waste of time, energy, and lost opportunity for profitable sales. Scientific management would prevent much of this loss.

The third step consists in bringing the science of selling and the

scientifically selected salesman together. This means that the work must be so organized that it shall be the duty of someone to see to it that sales are made in accordance with the principles of the science, and since the management now almost equally shares the responsibility for promoting the business, someone must be appointed to see that the management performs its new duties fully and conscientiously and that the salesmen perform their new duties in the same manner. Unless my prediction fail, the most difficulty will be found in bringing the management, rather than the salesmen, into line.

The fourth step involves an almost equal division of the actual responsibility of selling, between the salesman and the management. Divided salesmanship is regarded very much as was divided foremanship. Many sellers believe it to be impossible. Practically the same arguments are made against it that were made in the factory against divided foremanship. Nowadays, as has been stated, it is common practice to throw all or nearly all of the responsibility upon the salesmen. They are left very largely to their own devices. Under scientific management divided salesmanship is a division of responsibility and results in the constant and active co-operation by the management in the work of selling.

Again, as in the case of the factory, probably great objection will be made by the salesman. He will behave very much as did his brother in the factory. Much patience and skill must be exercised, and rapid progress should not be expected. Beginning by selecting one salesman, teaching him, and showing him that he is personally benefited, that he sells more and earns more, it will not be so difficult to bring other salesmen under scientific management. The younger men will be ready enough to undertake to do what is wanted. The difficulty will come from the older men who have fought their way up and who are justly proud of their success. Oftentimes they are entirely satisfied with their success, and endeavor merely to maintain their volume. Sooner or later, however, all salesmen are bound to recognize that the new methods bring greater results.

But this takes time, of course. The work of the scientific manager goes on from year to year and must be pursued in distri-

bution as unremittingly as in production where it usually takes several years to bring about the condition of scientific management.

In the case of a traveler, the field must be studied with reference to the product, the salesman, and their relations to each other. A time study of the field and of the salesman should be made. Certain elements of the process of selling can be reduced to laws and rules; for instance, when to solicit business, when not to solicit, how to solicit from Brown, how to solicit from Smith, determination of the methods of approach by recorded analysis and experience, when to advertise, when not to advertise, the advertising appeal, the business interview, classification of dealers, classification of consumers, periodicity of reorders, etc. Taking only one of these items for illustration, a recent case came to my attention where reorders had been increased 29 per cent under scientific management with negligible expense.

An almost equal division of the work between the management and the salesmen means also that ways must be found to help the dealer to increase the distribution of his merchandise. Proper advertising is desirable, but advertising alone will not help in this case. Advertising sometimes fails because the power to buy has diminished, and when it fails, both the manufacturer and the merchant are usually helpless. One of the national advertisers in reply to a question as to what he would do if his volume of business began to fall off, replied, "Increase my advertising." If he had replied, "Increase my advertising in certain places," he would have saved a great waste of money. But he did not know where purchasing power was rising, normal, or falling, and therefore when demand lessened he increased his advertising everywhere.

A scientific examination of the locality in connection with the study previously made of the business itself will tell us which of our tested methods to apply to make the merchant most effective. The merchant has not the ability to make a science study of his own business and reduce it as far as possible to laws and rules. That many merchants do not even know how to dispose of their surplus stock is proved by the rapid increase in the number of specialists who organize sales on a percentage basis and turn the

surplus stock into cash, a proceeding which the merchant himself is utterly incompetent to bring about.

Preparing the local market to consume the goods is another duty of the scientific manager. This has been attempted for many years, but usually only in one way—advertising. Preparing the dealer by teaching him what to do to get more trade, preparing his store by properly locating it on the best side of the best street at the best point for the purpose, and arranging stock and displays in the way to sell most goods, and preparing the consumers by applying the methods which stimulate demand—these are the duties of the scientific manager. Naturally the element of expense is a large consideration, but what does it matter so long as the cost of selling, due to increased volume of sales, is reduced? None of our plans will be successful unless the cost of selling is reduced.

The efficiency of the small dealer is a matter of great concern from every point of view. Almost invariably he does not know how to increase his trade and has not the ability to find a way. The question is how to make him distribute merchandise properly. In other words, how can the small dealer become an efficient distributor? It is the old question that was continually asked in the factory—How can the workman be made more efficient? At present, conditions in the small store are wretchedly unsatisfactory, but conditions might be radically altered and improved under a system of scientific management in which the producer or wholesaler should act as a sort of functional foreman and teach the small dealer how to attain the highest degree of efficiency for which his natural ability fits him.

It is not to be supposed that much time or expense can be devoted to this matter or that great changes can be brought about quickly; but the volume of distribution of product can be greatly increased by means of the device of the sales planning-room and the scientifically trained salesman who teaches the dealers how to increase distribution, and, in some cases, through visits to the dealer by functional salesmen assigned to work out the problem of distribution of the locality and set in motion the proper methods. Quite naturally the small dealer must wait his turn. His case cannot be taken up until larger matters are disposed of successfully.

The efficiency of the large dealer is of much more immediate interest because in his case the possibility of applying the principle of scientific salesmanship is financially practicable and because results can be measured more quickly. Particularly favorable opportunities are offered by concerns having stores in more than one city, or by manufacturers whose product is sold exclusively by independent stores in many different places. Under such conditions it is possible to make direct comparisons of men, methods, expenses, etc., under varying circumstances. The large department store also offers a good chance to show what can be done by the intensive application of these principles. As I have observed such stores in most of our large cities, I have often wondered with what astonishment their proprietors would view the receipts of a day's sales made under scientific management. Of the science of salesmanship there is little evidence except in a very few department stores and these appear to me to afford an excellent example of lop-sided effort and half-completed enterprise.

It should not be expected that changes from the old to the new ways of doing things can be made quickly. Even with the best intentions people are slow to change their habits and it is easy to slip back into the old ruts. Undertaking scientific management often means that habits of many years must be broken. It would be a great mistake to attempt this too quickly, because scientific management is a mental growth and only normal development should be expected. The introduction of the new way of doing things must be gradual and the benefits must be demonstrated as we go along. But when all these laws and rules have been applied through the intimate and hearty co-operation of the management and the salesmen and the dealer, that is, when there has been a complete mental revolution on the part of the management as to its duties and on the part of the salesmen as to their duties, when this new viewpoint has been established—the result of all this, in my judgment, will show a marked increase in the personal prosperity of the salesman and in the volume of sales per salesman, and a marked decrease in the cost of selling.

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